PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicam's or agent's file reference 2003P07735WO	FOR FURTHER ACTION	See Form PCT/IPEA/416					
International application No.	International filing date (day/m	nonth/year) Priority date (day/month/year)					
PCT/EP2004/051054 08.06.200		30.06.2003					
International Patent Classification (IPC) or nati	International Patent Classification (IPC) or national classification and IPC						
Applicant							
SIEMENS AKTIENGESELLSCHAFT							
This report is the international preli under Article 35 and transmitted to the	 This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 						
This REPORT consists of a total of		sheets, including this cover sheet.					
3. This report is also accompanied by A	ANNEXES, comprising:						
a. (sent to the applicant and	i to the International Bureau) a to	otal of 6 sheets, as follows:					
sheets of the descri	ption, claims and/or drawings wi	hich have been amended and are the basis for this report and/or authority (see Rule 70.16 and Section 607 of the Administrative					
Instructions).	Instructions).						
sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental							
	Box.						
b. (sent to the International	b. (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))						
	, containing a sequence listing and/or tables						
	related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).						
4. This report contains indications rela	ting to the following items:						
Box No. I Basis of th	Box No. I Basis of the report						
Box No. II Priority							
Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicabil							
	nity of invention						
Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement							
Box No. VI Certain do							
Box No. VII Certain de	Box No. VII Certain defects in the international application						
Box No. VIII Certain ob	Box No. VIII Certain observations on the international application						
Date of submission of the demand	Date of	completion of this report					
Name and mailing address of the IPEA/EP		ized officer					
Facsimile No.		one No.					

Translation

International application No.
PCT/EP2004/051054

Box	No. I	Basis of the report			
1.	With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.				
	This report is based on translations from the original language into the following language which is the language of a translation furnished for the purposes of:				
		international search (Rule 12.3 and 23.1(b))			
		publication of the international application (Rule 12.4)	•		
	Ш	international preliminary examination (Rule 55.2 and/			
2.	receiving this repor	rd to the elements of the international application, this Office in response to an invitation under Article 14 are i): nternational application as originally filed/furnished	report is based on (replacement s e referred to in this report as "o	sheets which have been furnished to the riginally filed" and are not annexed to	
	the o	description:			
	page	es <u>3,4</u>		as originally filed/furnished	
	pag	es* 1,2,2a	received by this Authority on	07.06.2005 with letter of 06.06.2005	
	pag	es*	received by this Authority on		
	the	claims:			
	nos			as originally filed/furnished	
	nos			er with any statement) under Article 19	
	nos			14.02.2005 with letter of 09.02.2005	
	nos			07.06.2005 With letter	
		drawings:			
	she			as originally filed/furnished	
	she				
		ets*			
	_				
		quence listing and/or any related table(s) - see Supplem	Bental Box Relating to Sequence 1	arsung.	
3.	The	amendments have resulted in the cancellation of:			
		the description, pages			
		the claims, nos. 8, 9			
	<u> </u>	the drawings, sheets/figs			
		the sequence listing (specify):			
	L_	any table(s) related to sequence listing (specify):			
4.	The	s report has been established as if (some of) the amend y have been considered to go beyond the disclosure as f	dments annexed to this report an iled, as indicated in the Suppleme	d listed below had not been made, since ental Box (Rule 70.2(c)).	
		the description, pages			
		the claims, nos.			
		the drawings, sheets/figs			
		the sequence listing (specify):			
		any table(s) related to sequence listing (specify):			
	If item 4	applies, some or all of those sheets may be marked "sup	perseded."		

International application No.
PCT/EP2004/051054

Box	x No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	
1.	Statement		
	Novelty	(N) Claims 1 to 7	_ YES
		Claims	_ NO
	Inventiv	ve step (IS) Claims .	YES
		Claims 1 to 7	NO
	Industria	al applicability (IA) Claims 1 to 7	_ YES
		Claims	_ NO
2.	Citations an	nd explanations (Rule 70.7)	
	1.	Technical field:	
		The invention concerns an angular rate sensor with	
		a vibration gyroscope.	
	2.	Prior art:	
		Reference is made to the following documents:	
		D1: EP-A-1 189 025; BEI TECHNOLOGIES INC.;	
		20 March 2002	
		D2: US-A-5 617 176; OLYMPUS OPTICAL CO. LTD.;	
		1 April 1997	
		D3: DE-A-43 40 719; SIEMENS AG; 1 June 1995	
		D4: DE-A-42 42 557; MOTOROLA INC; 16 October 1997	
	2	Independent claims: claim 1 (device).	
	3.	independent claims: Claim 1 (device).	
	4.	Novelty - PCT Article 33(2):	
		T. Hoveldy Lot Hibitate 35 (2).	
		Document D1, which is considered the prior art	
		closest to the subject matter of claim 1,	
		discloses an angular rate sensor with a vibration	
1			

International application No.
PCT/EP2004/051054

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

gyroscope (tuning fork gyroscope 11) and circuits for operating the vibration gyroscope and for evaluating angular rate signals. Said circuits access modifiable data which is stored in a writable, non-volatile memory (EEPROM 26) (see, e.g., column 1, line 58 to column 4, line 13 and figure 1). The data is, for example, data for adjusting the angular rate sensor or production data. Said data, following calibration, is stored during production in the EEPROM, the data still being modifiable at that time, and then being read out during operation (that is once the sensor has been switched on) (see, e.g., column 9, line 26 to column 12, line 58 and figures 8-10). The data is divided into groups in the memory (see, e.g., column 11, paragraph 78 and figure 9). security measures are also disclosed in document D1 (see, e.g., column 10, lines 1-43 and column 11, lines 26-38 and figure 9). Document D1 also indicates that an RS-232 serial protocol is used to write the EEPROM memory (see, e.g., column 12, paragraph 83). This means that the individual data items are written into the memory at different times. Serial access, however, clearly also means that the data items of the individual groups are written or read into the memory independently of each other. It is also possible to subsequently re-programme the EEPROM memory, for example during maintenance or repair work, using a special programming mode (see, e.g., column 11, paragraph 80 to column 12, paragraph 85).

International application No.
PCT/EP2004/051054

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

The subject matter of independent claim 1 differs from the closest prior art according to document D1 in that a check sum is formed from the data for each group, is stored in the non-volatile memory and is used for checking when reading. The subject matter of independent claim 1 is thus novel.

5. Inventive step - PCT Article 33(3)

The present application does not meet the requirements of PCT Article 33(3) because the subject matter of claims 1 to 7 does not involve an inventive step (PCT Rule 65(1) and (2)) for the following reasons:

5.1 The feature of forming a check sum for data checking is only one of several obvious possibilities from which a person skilled in the art would choose according to the circumstances in order to solve the problem of interest (establishing data security), without thereby being inventive.

A person skilled in the art would be generally aware that this feature is equivalent to the feature known from document D1 concerning redundant data storage and could be interchanged therewith if necessary (if, for example, there is a need to use less storage space). The subject matter of independent claim 1 is not inventive.

International application No.
PCT/EP2004/051054

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

5.2 Dependent claims 2 to 7:

The features of dependent claims 2 to 7 can either also be taken from document D1 (see, e.g., column 1, line 58 to column 4, line 13; column 9, line 26 to column 12, line 58 and figures 1 and 8-10) or disclose minor modifications of or extensions to the device described in independent claim 1, of the kind that a person skilled in the art routinely makes on the basis of familiar considerations, especially since the resulting advantages are readily foreseeable. Consequently, the subject matter of claims 2 to 7 does not involve an inventive step.

6. Industrial applicability - PCT Article 33(4)

The invention claimed in claims 1 to 7 is industrially applicable in the field of angular rate sensors.

International application No.
PCT/EP2004/051054

Box No. VII	Certain defects in the international application
The following def	fects in the form or contents of the international application have been noted:
	Independent claim 1 is not drafted in the correct
	two-part form in relation to document D1 (PCT Rule
ļ	6.3(b).
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i.	
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